

**CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM**  
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R014 Coachella Valley Fringe-toed Lizard *Uma inornata*  
Family:Phrynosomatidae Order:Squamata Class:Reptilia

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#### DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The Coachella Valley fringe-toed lizard is an uncommon, protected species, limited to sand dunes in the Coachella Valley, Riverside Co. It is associated with sparse desert scrub, alkali scrub, and desert wash habitats, and may be common locally (Pough 1973, England and Nelson 1977, California Dept. Fish and Game 1983).

#### SPECIFIC HABITAT REQUIREMENTS

**Feeding:** Fringe-toed lizards are primarily insectivorous and their diet includes ants, beetles, grasshoppers, sand-dwelling cockroaches, hemipterans, spiders, antlion larvae, and caterpillars. Other California fringe-toed lizards eat flower buds, stems leaves and seeds of plants as well (Miller and Stebbins 1964, Kaufmann 1982), but this may not be true for the Coachella Valley fringed-toed lizard. Kaufmann (1982) found differences in the diets of adult male and female Mojave fringe-toed lizards during the breeding season. Males primarily fed on ants and plant material in the mornings, whereas females and juveniles ate ants and other insects throughout the day.

**Cover:** Fringe-toed lizards usually hide from enemies by burrowing in the sand ("sand swimming"), within 5-6 cm (2-2.4 in) of the surface. They are usually buried on the lee side of dunes to prevent excavation by winds (Cowles 1941, Stebbins 1944). Rodent burrows and the bases of shrubs are also used for cover (Stebbins 1944) and thermoregulation (Pough 1970).

**Reproduction:** Eggs are probably buried in the sand. Reproduction varies from year to year depending on the amount of rainfall. More young are produced following wet winters, probably reflecting greater abundance of spring annuals and available insect food (Mayhew 1964, 1965).

**Water:** Water is probably obtained from food (Mayhew 1968).

**Pattern:** Requires sand dunes interspersed with hardpan and widely spaced desert shrubs. Fine, loose, windblown sand is required. Shrubs or annual plants may be necessary for arthropods found in the diet.

#### SPECIES LIFE HISTORY

**Activity Patterns:** Active during the daytime. Seasonally active from mid-spring to mid-fall.

**Seasonal Movements/Migration:** No data.

**Home Range:** No data.

Territory: No data.

Reproduction: Mating and egg-laying occur throughout the spring and summer (Behler and King 1979). Clutch size ranges from 2 to 4. Recently hatched young have been observed in early October (Stebbins 1954).

Niche: This fringe-toed lizard is highly adapted for life in fine, loose sand. Adaptations are described in Stebbins (1944, 1954). Lizards escape predation by running bipedally at high speed and plunging into sand (Stebbins 1944, 1966). Predators include roadrunners, badgers, loggerhead shrikes, American kestrels, and coyotes. Snakes that prey on fringe-toed lizards include sidewinders, glossy snakes, and coachwhips (Stebbins 1944, Norris 1958, Funk 1965).

Comments: The Department of Fish and Game and the U.S. Fish and Wildlife Service are preparing a management and recovery plan. The plan in draft form identifies habitat areas for acquisition and protection (California Dept. Fish and Game 1983).

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